

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An information processing apparatus comprising:

data storing means;

first and second data input/output means for giving access to the data storing means;

clock generating means for supplying a clock signal to the first and the second data input/output means;

switching means for switching access of the first data input/output means or the second data input/output means to the data storing means; and

access arranging means for causing the clock signal to the second data input/output means to be stopped and not allowing the second data input/output means to access the data storing means, for executing the access of the first data input/output means earlier than the second data input/output means when a contention of the access of the first data input/output means and the second data input/output means to the data storing means is generated, and for canceling the stop of the clock signal to the second data input/output means and starting the access of the second data input/output means after the access of the first data input/output means is ended,

the access arranging means further causing the clock signal to the second data input/output means not to be stopped when an access of the first data input/output means to the data storing means is generated but an access of the second data input/output means to the data storing means is not generated.

2. (Currently Amended) An information processing apparatus comprising:

a built-in memory;

a processor for processing data stored in the built-in memory;

clock generating means for supplying a clock signal to the processor;

input/output control means for executing access to the built-in memory upon receipt of an instruction from an external control device; and

access arranging means for generating a wait request signal to cause the clock signal to be stopped and carrying out access of the input/output control means with a priority when a contention of access of the processor and the input/output control means to the built-in memory is generated,

wherein a wait request signal is not generated if an access of the input/output control means to the built-in memory is generated by an access of the processor to the built-in memory is not generated.

3. (Original) The information processing apparatus according to claim 2, further comprising selecting means for switching the access of the processor and the input/output control means to the built-in memory,

wherein the access arranging means outputs a control signal to the selecting means when a request for the access of the input/output control means to the built-in memory is generated during the access of the processor to the built-in memory, and

the selecting means receiving the control signal switches the access of the processor to the access of the input/output control means to the built-in memory.

4. (Original) The information processing apparatus according to claim 2, further comprising holding means for holding read data output from the built-in memory before a wait operation of the processor during the wait operation of the processor,

wherein the access arranging means switches read data to be supplied to the processor between the read data output from the built-in memory and the read data held by the holding means.

5. (Currently Amended) A memory access arranging method of an information processing apparatus including data storing means and first and second data input/output means for giving access to the data storing means, comprising the steps of:

causing a clock for the second data input/output means to be stopped and not allowing the second data input/output means to access the data storing means when a contention of the access of the first data input/output means and the second data input/output means to the data storing means is generated;

executing the access of the first data input/output means earlier than the second data input/output means; and

canceling the stop of the clock signal of the second data input/output means after ending the access of the first data input/output means, and executing the access of the second data input/output means,

wherein the method further comprises causing the clock signal to the second data input/output means not to be stopped when an access of the first data input/output means to the data storing means is generated but an access of the second data input/output means to the data storing means is not generated.

6. (Currently Amended) A memory access arranging method of an information processing apparatus including a processor for carrying out a pipeline processing over an instruction, a memory provided in the processor, and input/output control means for executing access to the memory with a higher priority than the processor, comprising the steps of:

generating a wait request signal for causing a clock signal supplied to the processor to be stopped when a contention of access of the processor and the input/output control means to the memory is generated;

switching the access of the processor to the access of the input/output control means to the memory; and

canceling the wait request signal after ending the access of the input/output control means to the memory, and executing the access of the processor to the memory,

wherein a wait request signal is not generated if an access of the input/output control means to the built-in memory is generated by an access of the processor to the built-in memory is not generated.

7. (Previously Presented) A memory access arranging method of an information processing apparatus having a processor for carrying out a pipeline processing over an instruction, a memory provided in the processor, input/output control means for executing access to the memory with a higher priority than the processor, and holding means for holding read data output from the memory before a wait operation of the processor during the wait operation of the processor, comprising the steps of:

holding the read data output from the memory before the wait operation of the processor when a contention of read access of the input/output control means is generated for a period in which the processor gives continuous read access to the memory;

causing a clock signal supplied to the processor to be stopped;

executing the access of the input/output control means to the memory; and

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canceling the stop of the clock signal of the processor after ending the access of the input/output control means to the memory, supplying the data held in the holding means to the processor, and restarting the access of the processor to the memory.